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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/711,988 | 10/18/2004 | William E. Melander | A4-1854 | 5987 |
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| HARTMAN & HARTMAN, P.C. 552 EAST 700 NORTH VALPARAISO, IN 46383 | | | EXAMINER COHEN, AMY R | |
| | | | ART UNIT 2859 | PAPER NUMBER |

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,988

Applicant(s)

MELANDER, WILLIAM E.

Examiner

Amy R. Cohen

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 and 6-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 26 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 17 objected to because of the following informalities:

Claim 17, lines 16-17, the claim language is directed to “locating a point along the length of the chord with a second measuring means;” however, the point is located at a height above the chord on the surface of the cylindrical body, not on the actual chord.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Burnat (French Application FR 002551859A1, translation provided).

Burnat teaches a method of determining the diameter of a cylindrical body, the method comprising the steps of: supporting a housing (1) on the cylindrical body while the cylindrical body is oriented so that its longitudinal axis is approximately horizontal, the housing being vertically supported with wheels (16, 22) that contact an upper surface of the cylindrical body and have axes of rotation oriented in a substantially vertical direction which vertically supporting the housing on the upper surface of the cylindrical body (Figs. 1 and 3, Page 2, the first two full paragraphs, Page 4, sixth through eighth paragraphs); and determining the diameter of the

cylindrical body while causing the housing to travel on the upper surface along a longitudinal length of the cylindrical body while the wheels contact the upper surface of the cylindrical body and the axes of rotation of the wheels remain substantially vertical (Figs. 1 and 3, Page 2, the first two full paragraphs, Page 4, sixth through eighth paragraphs).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burnat in view of Helmricks (U. S. Patent No. 6,079,113).

Regarding claims 9, 10: Burnat discloses a profile acquisition micrometer system (1) for sensing the diameter and variations in the diameter of a cylindrical body while the cylindrical body is oriented so that its longitudinal axis is approximately horizontal, the micrometer comprising: a portable freestanding micrometer unit (1) (Fig. 1); means for supporting the micrometer unit on the cylindrical body while the cylindrical body is oriented so that its longitudinal axis is approximately horizontal, the supporting means comprising wheels (16, 22) disposed so as to contact a upper surface of the cylindrical body and thereby vertically support the micrometer unit on the upper surface, each of the wheels having an axis of rotation oriented in a substantially vertical direction when the micrometer unit is supported by the wheels on the upper surface of the cylindrical body (Figs. 1 and 3, Page 2, the first two full paragraphs, Page 4,

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sixth through eighth paragraphs); and means for determining the diameter of the cylindrical body as the micrometer unit travels on the upper surface along a longitudinal length of the cylindrical body while the wheels contact the upper surface of the cylindrical body and the axes of rotation of the wheels are substantially vertical (Figs. 1 and 3, Page 2, the first two full paragraphs, Page 4, sixth through eighth paragraphs).

Burnat does not disclose the profile acquisition micrometer system wherein the system is electronic; wherein the determining means is programmed to calculate the diameter of the cylindrical body based on the formula $d = (c^2 + 4h^2)/4h$ where d is the diameter of the cylindrical body, c is the length of a horizontal chord measured by the determining means, and h is the height of the horizontal chord.

Helmrichs discloses an electronic profile acquisition micrometer wherein the determining means is programmed to calculate the diameter of the cylindrical body based on the formula $d = (c^2 + 4h^2)/4h$ where d is the diameter of the cylindrical body, c is the length of a horizontal chord measured by the determining means, and h is the height of the horizontal chord (Col 6; lines 7-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the micrometer of Burnat to specify the formula for calculating the diameter, as taught by Helmrichs, so that the user would have an accurately programmed determining means which could give the diameter with an accuracy within a thousandths of an inch (Helmrichs, Col 6, lines 7-29).

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6. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burnat and Helmricks as applied to claims 9 and 10 above, and further in view of Betsill et al. (U. S. Patent No. 5,088,207).

Burnat and Helmricks disclose the electronic profile acquisition micrometer system and method as described above in paragraph 5 and comprising means for determining a profile of the cylindrical body along the longitudinal length thereof based on changes in the diameter of the cylindrical body continuously determined along the longitudinal length of the cylindrical body (Col 2, line 53-Col 3, line 29).

Burnat and Helmricks do not disclose the electronic profile acquisition micrometer and method comprising means for sensing a distance the micrometer unit travels along the longitudinal length of the cylindrical body.

Betsill et al. discloses an electronic profile acquisition micrometer and method comprising means for sensing a distance the micrometer unit travels along the longitudinal length of the cylindrical body (Col 2, lines 50-52, Col 3, lines 51-61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the micrometer of Burnat and Helmricks to include a means for sensing distance, as taught by Betsill et al., so that a user would be able to both measure the diametrical profile of a cylindrical body and the length along which the micrometer traveled.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burnat and Helmricks as applied to claims 9 and 10 above, and further in view of Wachtler (U. S. Patent No. 5,052,121).

Burnat and Helmrichs disclose the electronic profile acquisition micrometer system and method as described above in paragraph 5.

Burnat and Helmrichs do not disclose the micrometer and method comprising means for sensing a temperature of the cylindrical body adjacent at least one of the first and second surface points.

Wachtler discloses a micrometer and method comprising means for sensing a temperature of the cylindrical body adjacent at least one of the first and second surface points (Col 8, lines 49-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the micrometer and method of Burnat and Helmrichs to include a means for temperature sensing, as taught by Wachtler, in order to ensure that the measurements are accurate with respect to the temperature of the cylindrical body (Wachtler, Col 7, lines 41-58).

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burnat in view of Betsill et al.

Burnat discloses the method as described above in paragraph 3.

Burnat does not disclose the method comprising means for sensing a distance the micrometer unit travels along the longitudinal length of the cylindrical body.

Betsill et al. discloses an electronic profile acquisition micrometer and method comprising means for sensing a distance the micrometer unit travels along the longitudinal length of the cylindrical body (Col 2, lines 50-52, Col 3, lines 51-61).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the micrometer of Burnat to include a means for sensing distance, as taught

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by Betsill et al., so that a user would be able to both measure the diametrical profile of a cylindrical body and the length along which the micrometer traveled.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burnat in view of Wachtler.

Burnat discloses the method as described above in paragraph 3.

Burnat does not disclose the method comprising means for sensing a temperature of the cylindrical body adjacent at least one of the first and second surface points.

Wachtler discloses a micrometer and method comprising means for sensing a temperature of the cylindrical body adjacent at least one of the first and second surface points (Col 8, lines 49-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the micrometer and method of Burnat to include a means for temperature sensing, as taught by Wachtler, in order to ensure that the measurements are accurate with respect to the temperature of the cylindrical body (Wachtler, Col 7, lines 41-58).

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hold (U. S. Patent No. 3,169,323) in view of Helmrichs.

Hold discloses a method of determining the diameter of a cylindrical body, the method comprising the steps of: supporting a housing on a surface of the cylindrical body (Col 1, lines 67-70); supporting a first measurement means with an arm mounted to the housing and projecting outwardly therefrom, the arm having graduations along a length thereof, the graduations defining a chord scale corresponding to multiple chord lengths lying in a cross-section plane of the cylindrical body, the first measurement means being movably mounted to

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the arm to enable selective positioning of the first measurement means along the length of the arm with the graduations (Col 2, lines 13-50); positioning the first measurement means at one of the graduations on the arm corresponding to one of the multiple chord lengths based on the size of the cylindrical body, the first measurement means locating a terminal of a chord corresponding to the one of the multiple chord lengths (Col 2, lines 13-50); locating a point along the length of the chord with a second measurement means (Col 2, lines 13-50); and determining the diameter of the cylindrical body based on the length and height of the chord (Col 2, line 57-Col 3, line 10). Examiner notes that the chord in the Hold reference is the diameter.

Hold does not disclose the method wherein the system is electronic; comprising locating an intermediate point along the length of the chord with the second measurement means; wherein the determining means is programmed to calculate the diameter of the cylindrical body based on the formula $d = (c^2 + 4h^2)/4h$ where d is the diameter of the cylindrical body, c is the length of a horizontal chord measured by the determining means, and h is the height of the horizontal chord.

Helmrichs discloses an electronic profile acquisition micrometer and method comprising locating an intermediate point along the length of the chord with the second measurement means (Col 6, lines 7-29); wherein the determining means is programmed to calculate the diameter of the cylindrical body based on the formula $d = (c^2 + 4h^2)/4h$ where d is the diameter of the cylindrical body, c is the length of a horizontal chord measured by the determining means, and h is the height of the horizontal chord (Col 6, lines 7-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Hold to specify the formula for calculating the diameter and using an intermediate point along the length of the chord, as taught by Helmrichs, so that the user

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would have an accurately programmed determining means which could give the diameter with an accuracy within a thousandths of an inch (Helmrichs, Col 6, lines 7-29).

Double Patenting

11. Claims 1-4, 6-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,820,347. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the Patent cover the subject matter of the claims of the current Application.

Response to Arguments

12. Applicant's arguments with respect to claims 1-4, 6-20 have been considered but are moot in view of the new ground(s) of rejection.

13. It is noted in Applicant's remarks on Page 16, that Applicant states that claim 17 has been amended to specify that the wheels are vertically supported, however, no wheels are claimed in claim 17.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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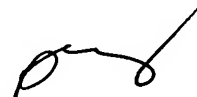
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R. Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARC
January 23, 2006



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